



Joseph P. Bort MetroCenter  
 101 Eighth Street  
 Oakland, CA 94607-4700  
 TEL 510.817.5700  
 TDD/TTY 510.817.5769  
 FAX 510.817.7848  
 E-MAIL [info@mtc.ca.gov](mailto:info@mtc.ca.gov)  
 WEB [www.mtc.ca.gov](http://www.mtc.ca.gov)

## ***Memorandum***

TO: BATA Oversight Committee

DATE: February 4, 2015

FR: Executive Director

W.I. 1251

RE: I-580 Access Improvement Projects to the Richmond-San Rafael (RSR) Bridge: (i) Decision Document with California Department of Transportation and (ii) Contract Amendment – On-Call Design Services – HNTB Corporation (\$4,650,000)

This item would authorize the Executive Director, or his designee, to negotiate and execute (i) a decision document with the California Department of Transportation (Caltrans) to confirm high level concepts for improving access and operations to the Richmond-San Rafael (RSR) Bridge Corridor and (ii) a contract amendment with HNTB Corporation (HNTB) for \$4,650,000 for the preparation of Plans, Specifications and Estimate (PS&E) packages prior to completion of the project report and final environmental document. The attached Powerpoint (Attachment A) provides further information.

### **Background**

Regional population growth and local business development in Marin County has resulted in significant traffic increases on eastbound (EB) I-580 and the RSR Bridge approach during evening peak commute periods. This also results in significant traffic delays along EB Sir Francis Drake Boulevard. Additional evening traffic congestion occurs on northbound US 101, from the Tamalpais Drive Interchange to the Sir Francis Drake Boulevard off-ramp, and continues onto EB I-580.

The 270-mile Bay Trail serves as a major transportation corridor throughout the region with an estimated 40 million annual trips made on the existing trail in 2005, making it one of the most heavily used recreation and non-motorized transportation assets in the region. The lack of bicycle and pedestrian facilities across the RSR Bridge represents a major gap in the Bay Trail.

The Project envisions improvements for motorists, bicyclists and pedestrians on the RSR Bridge Corridor. The key improvement for motorists would be to open a third travel lane in the EB direction of I-580 from Sir Francis Drake Boulevard in Marin County to Marine Street in Contra Costa County during the evening peak period only. The key improvements for bicyclist and pedestrians would provide a barrier-separated path along I-580 in Richmond, including the addition of pedestrian access to Point Molate, and convert the existing shoulder on the upper deck of the RSR Bridge into a bi-directional bicycle and pedestrian path to connect Marin with Contra Costa County.

In March 2014, this Committee approved a contract with HNTB Corporation to begin the environmental studies for all these improvements.

**(i) Decision Document with California Department of Transportation**

In December 2014, Chair Rein Worth, Commissioner Kinsey and BATA executive staff met with Caltrans Director Malcolm Dougherty, Caltrans District 4 Director Bijan Sartipi and a leadership team from the office of the California Secretary of Transportation to discuss final concepts and expediting completion of these improvements to the RSR Bridge corridor. The concepts are described below and are memorialized in the attached decision document (Attachment B):

- Project A – Third Travel Lane to Reduce Congestion and Delay – The existing lower deck 12-foot shoulder will be opened as a third travel lane in the EB direction of Interstate 580 across the RSR Bridge to provide traffic congestion relief during the weekday evening peak period only. The third EB lane will operate as a pilot project for a period of 4 years. Performance metrics will be developed to estimate motorist delay before and after the improvements and assess trends in motor vehicle accident rates.
- Project B – Bi-directional Bicycle/Pedestrian Path to Provide Bay Trail Access on the RSR Bridge - The bi-directional bicycle pedestrian path will be 10 feet wide, be separated from vehicular traffic on the upper bridge deck by a movable barrier system, and also have a pilot period of 4-years. Performance metrics will be developed to estimate motorist delay and accident rates before and after the improvements and estimate the number of users of the trail.

The decision document does not eliminate the need for BATA and Caltrans to comply with the requirements set by the California Environmental Quality Act (CEQA) and the National Environmental Protection Act (NEPA). However, it allows BATA to proceed at pace with the development of the project study report-project development support (PSR/PDS).

**(ii) Contract Amendment – On-Call Design Services: I-580 Access Improvement Projects to the RSR Bridge Corridor: HNTB Corporation (\$4,650,000)**

From the outset, BATA staff assessed opportunities to accelerate the project. Staff adopted a “design at risk” strategy (beginning design in advance of environmental clearance) to shorten the timeframe for opening all the improvements.

The contract amendment includes the additional scope of work required to complete the final design for the two projects. The preparation of two separate PS&E packages would allow either package to be advertised for construction as soon as the final design was approved by Caltrans.

The goal for this strategy of completing the final design concurrently with the Project Report and Environmental Document would be to have a package ready to advertise for construction at the completion of the Project Approval/Environmental Documentation (PA/ED) phase of the project.

The following is a breakdown of estimates by the major deliverables associated with this contract amendment.

CURRENT HNTB SCOPE ELEMENT	COST
Prepare Project Report and Environmental Document	\$3,000,000
ADDITIONAL HNTB SCOPE ELEMENT	COST
Final Design and PS&E – 3 <sup>rd</sup> EB Running Lane	\$2,700,000
Final Design and PS&E – Upper Deck Bicycle and Pedestrian Path	\$1,450,000
Contingency (12%)	\$500,000
Additional HNTB Scope Element Total	\$4,650,000

Attachment C includes a summary of HNTB and its project team's small and disadvantaged business enterprise status.

**Recommendation**

Staff recommends that this Committee authorize the Executive Director or his designee to (i) negotiate and execute the project scoping Decision Document with Caltrans in substantially the form as appears in Attachment B with such revisions as the Executive Director or his designee may approve and (ii) negotiate and enter into a contract amendment with HNTB Corporation in an amount not to exceed \$4,650,000 to complete final designs of the two projects.



Steve Heminger

Attachment A – Richmond/San Rafael PPT

Attachment B – Decision Document

Attachment C – SBE – DBE Firm

SH: cl

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# I-580 Access Improvement Project

3<sup>rd</sup> Eastbound I-580 Travel Lane and  
Bicycle Pedestrian Path

BATA Oversight Committee Meeting

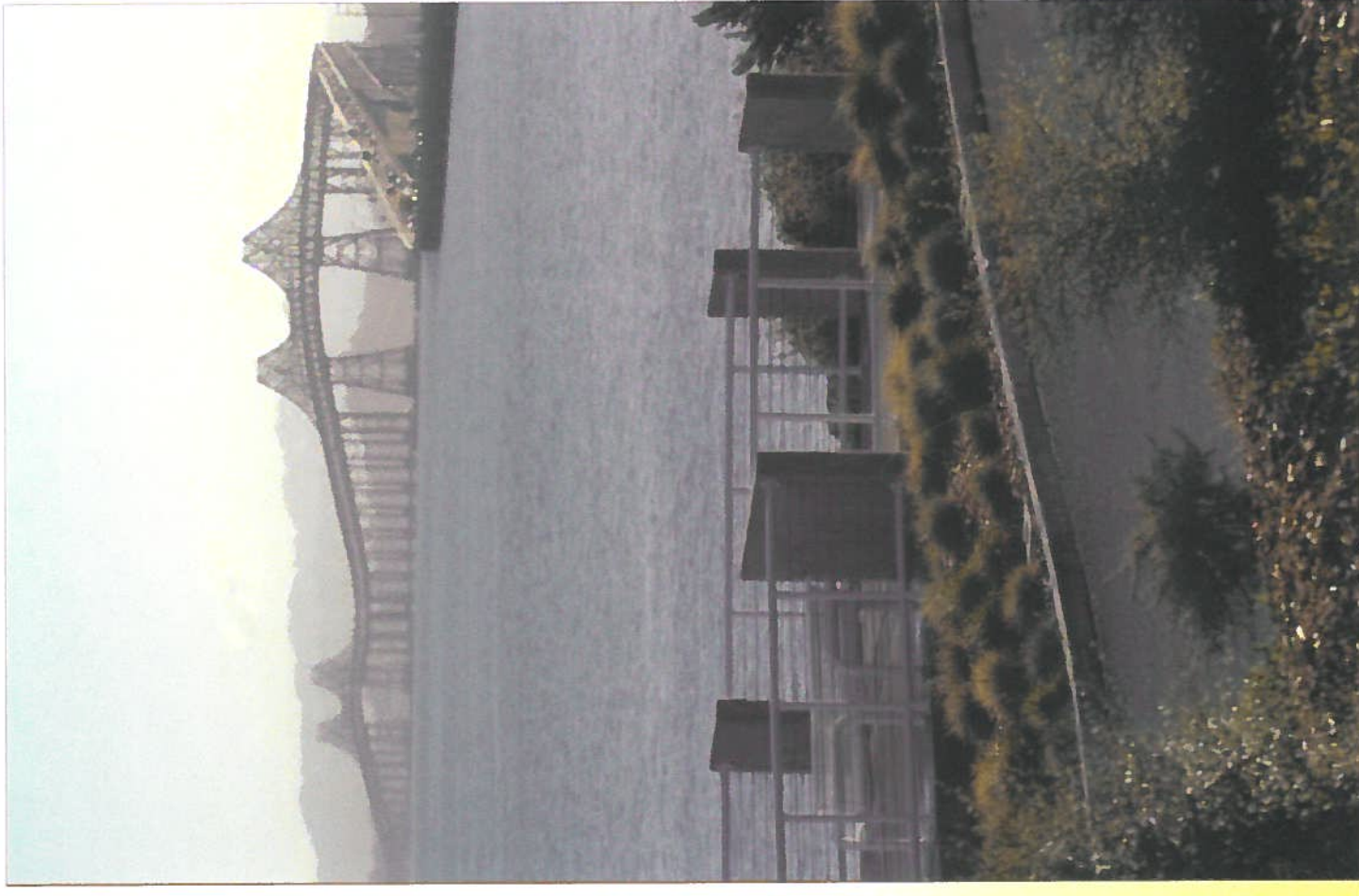
February 11, 2015





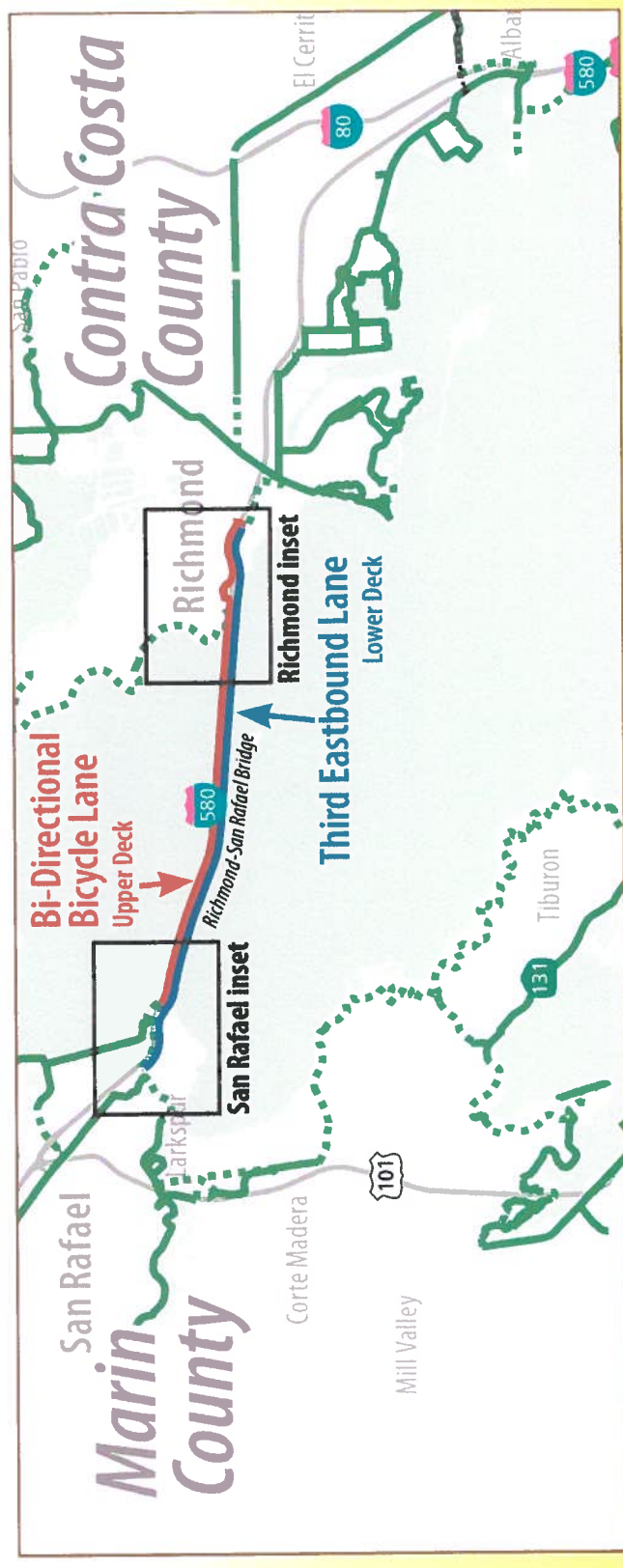
# Project Goals

- Provide traffic congestion relief in Marin County
- Close existing gap in Bay Trail between San Rafael and Richmond
- Enhance alternative transportation options for non-motorized modes



# Major Project Elements

- Eastbound Third Lane: Sir Francis Drake Blvd. to Marine St.
- 10-ft Barrier Separated Bike/Pedestrian Path on Upper Deck
- Contra Costa Bike/Pedestrian Path connection in Richmond



# **Project A:**

## **3<sup>rd</sup> Eastbound I-580 Travel Lane**

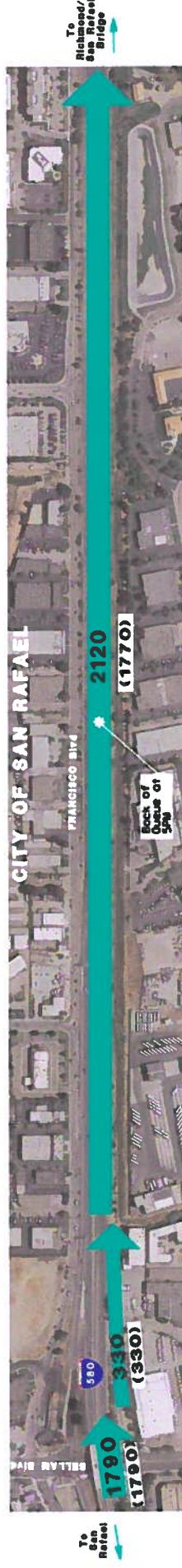
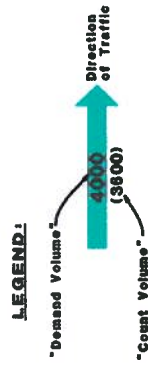


# 3<sup>rd</sup> Eastbound I-580 Travel Lane

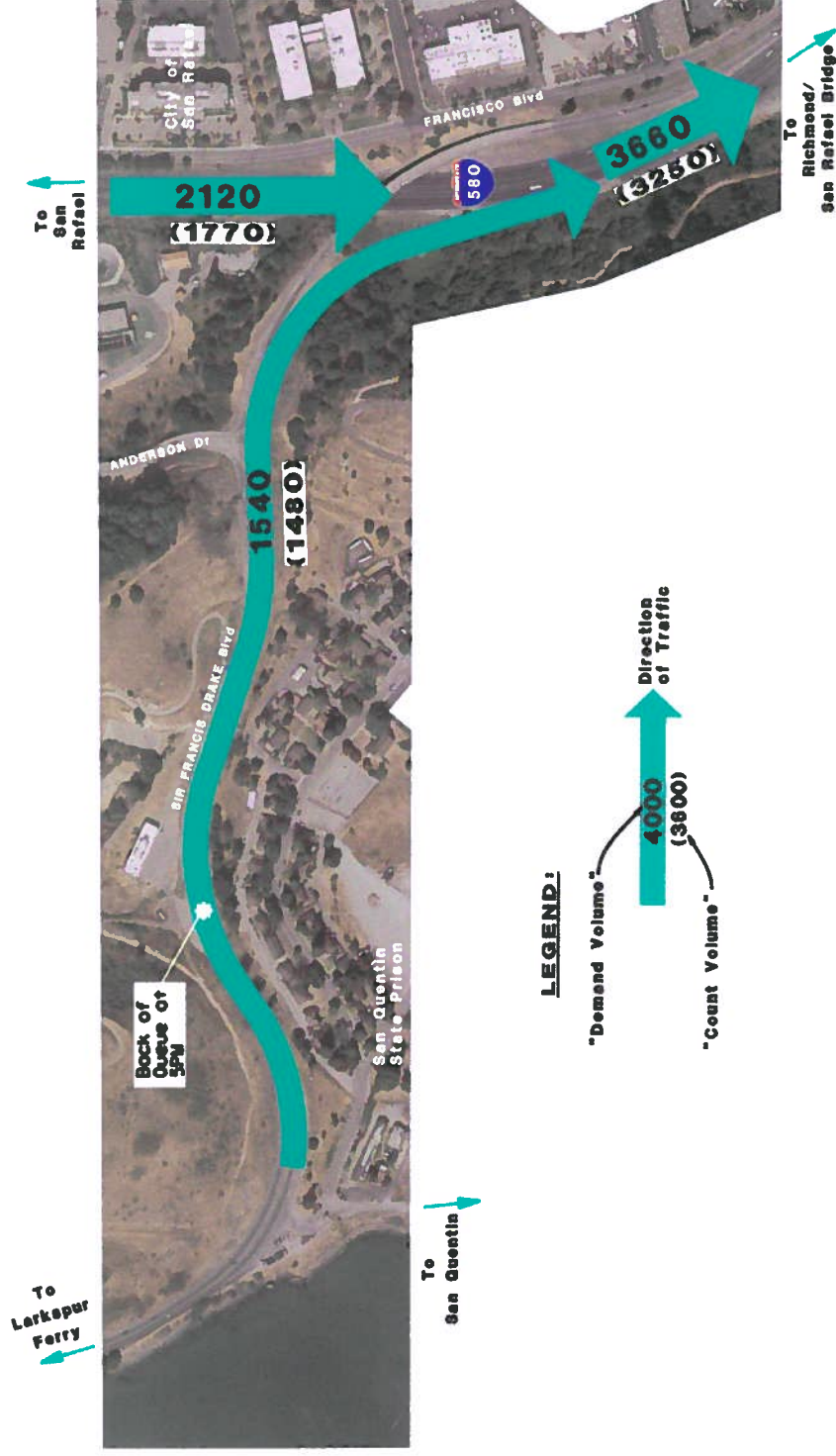
- Lane extend from Sir Francis Drake on-ramp to Marine Street off-ramp
- Pilot project – Weekday Peak Period Use
- Suggested duration of pilot is 4-years
- Highway geometric improvement needed to convert existing shoulder for vehicular use.



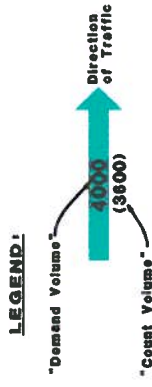
# Traffic Demand - San Rafael



# Traffic Demand - San Rafael



# Traffic Demand - San Rafael





# Traffic Demand - Richmond





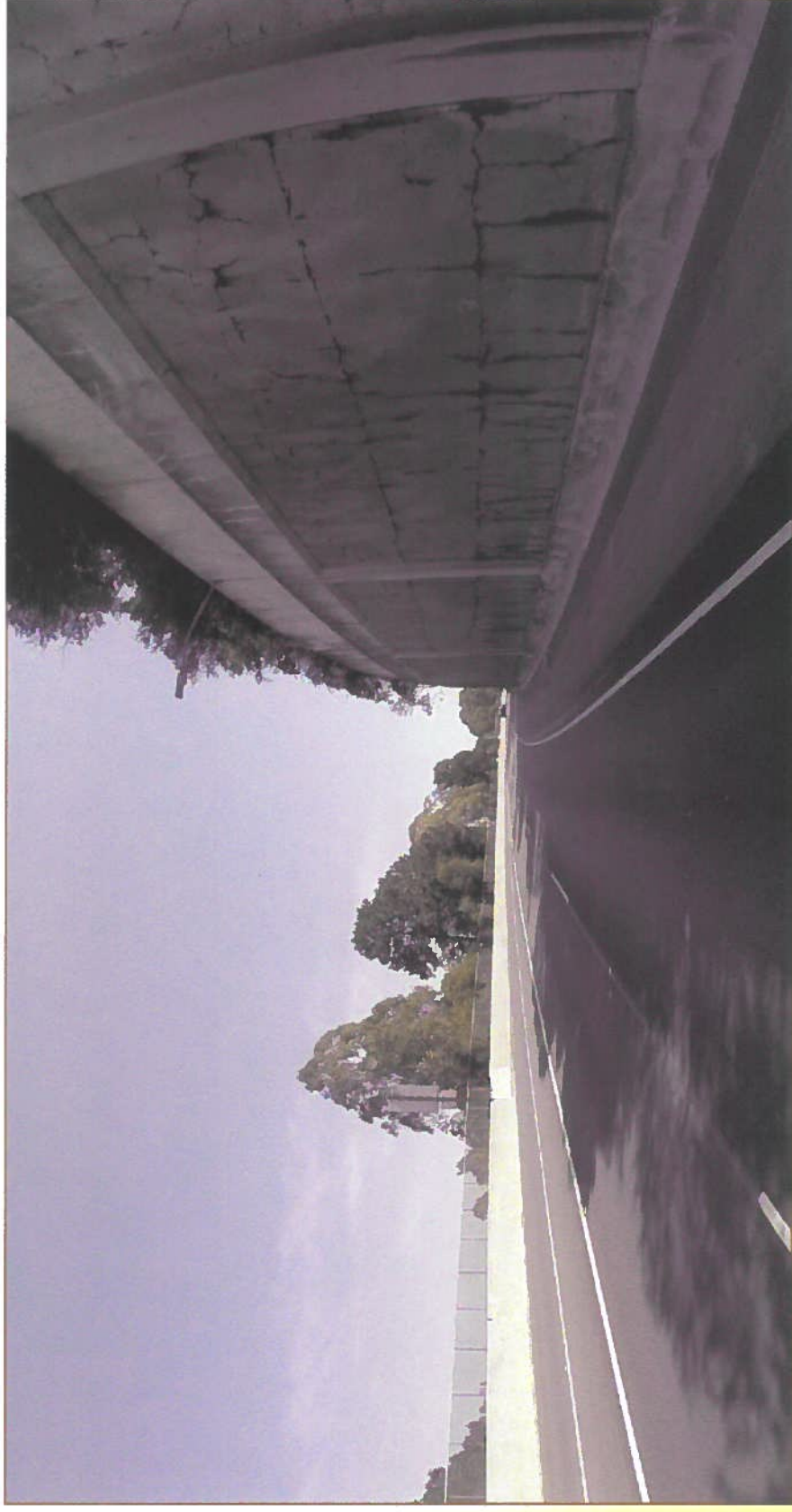
# Improve Main St eastbound on-ramp merge with new 3<sup>rd</sup> lane



# Restripe RSR Bridge Lower Deck Structural modifications not required



# Retaining wall removal and reconstruction in Richmond









# Design speed & stopping sight distance (SSD)

	Design Speed (mph)	SSD (ft)	Max Wall Height (ft)	Avg. Wall Height (ft)	Wall Length (ft)
Exist Wall & Striping	50	458	28 (Exist)	20 (Exist)	585 (Exist)
Exist Wall & Modified Striping	43	347	28 (Exist)	20 (Exist)	585 (Exist)
55 mph Ret Wall	55	500	32	20	545

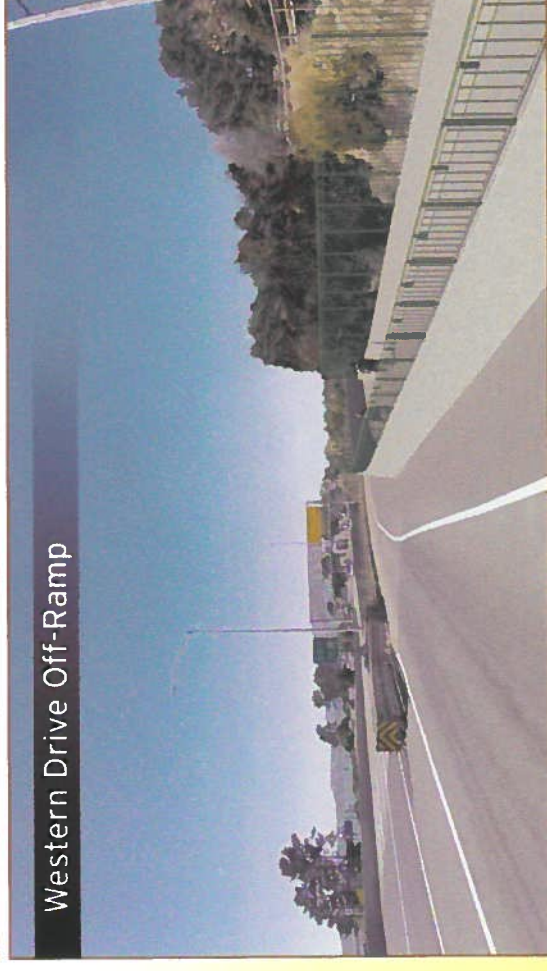
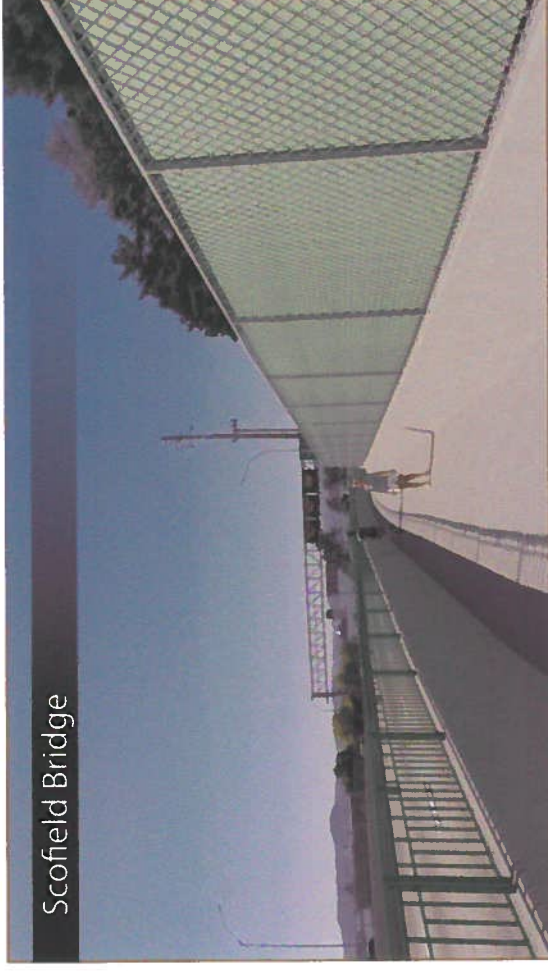
# Mitigating the conversion of shoulder open to bicycles to a 3<sup>rd</sup> eastbound lane





# Contra Costa County - Path

- 10-ft wide path
- Attractive railing
- Visual screen on Scofield; open elsewhere
- Raised pathway



# **Project B:** Bicycle-Pedestrian Path on RSR Bridge upper deck





# RSR Bridge Bicycle Pedestrian Path

## 10 ft width on upper deck

- Standard width for bicycles & pedestrians
- Maintenance access
- 4 year trial

## Barrier System Alternatives

- Movable System (see picture)
- Temporary K-Rail

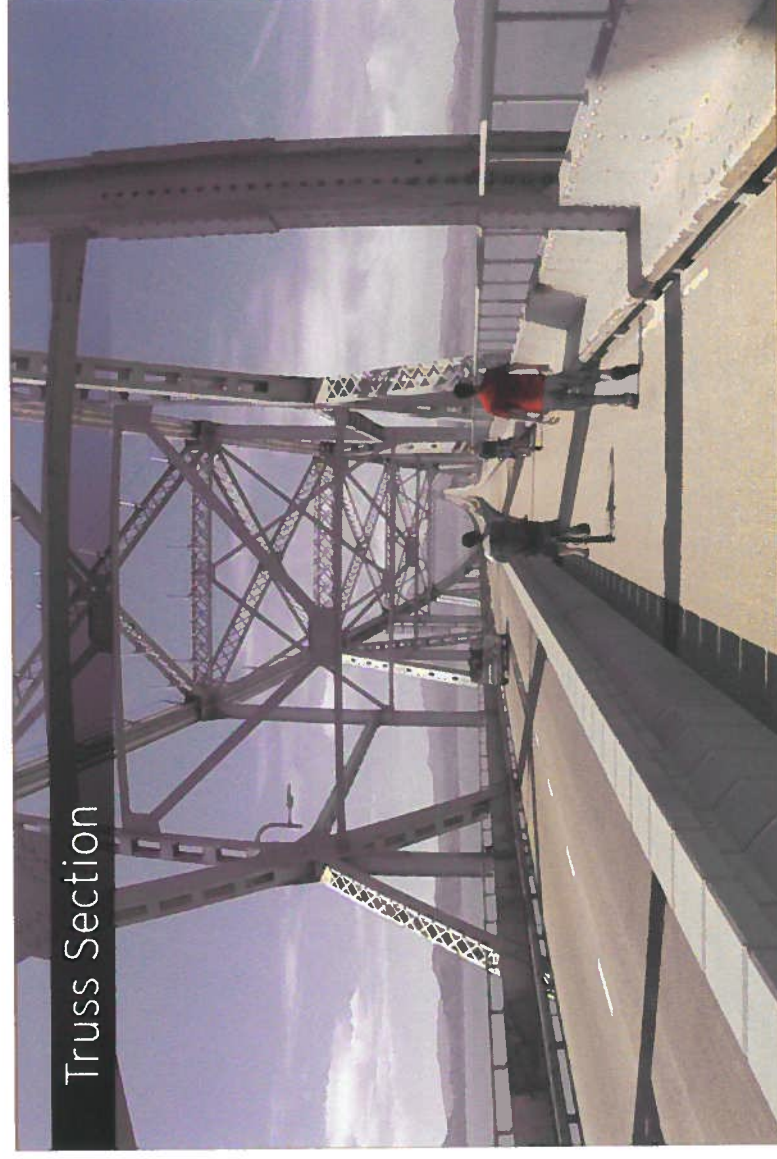
## Increased RSR Bridge outside railing height

## Accelerated Incident Response

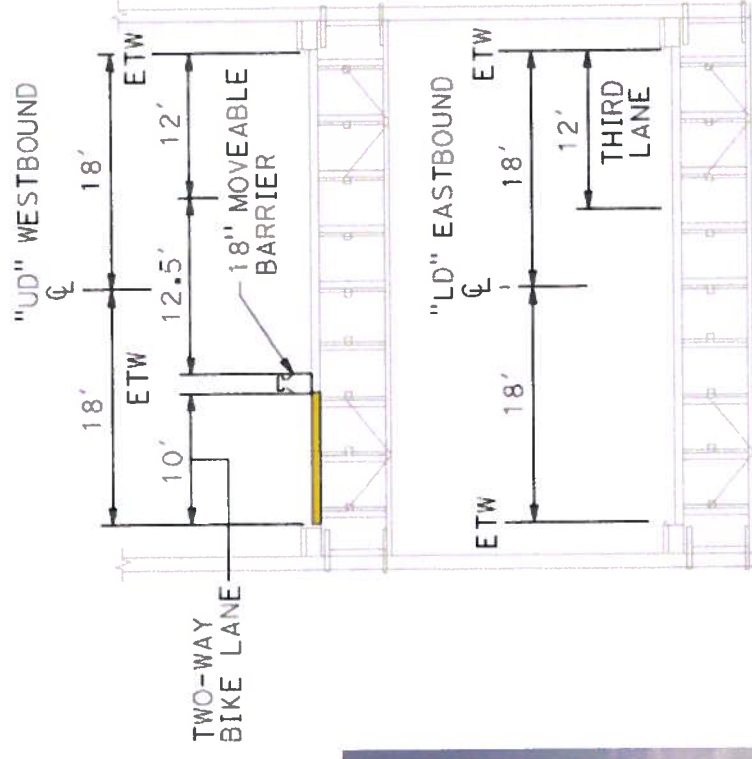
- Tow trucks from Richmond or Marin
- Contraflow access from Main Street



# Upper Deck – 10-ft Pathway



Truss Section



# Incident Management Eastbound Third Lane & Bike/Ped Path

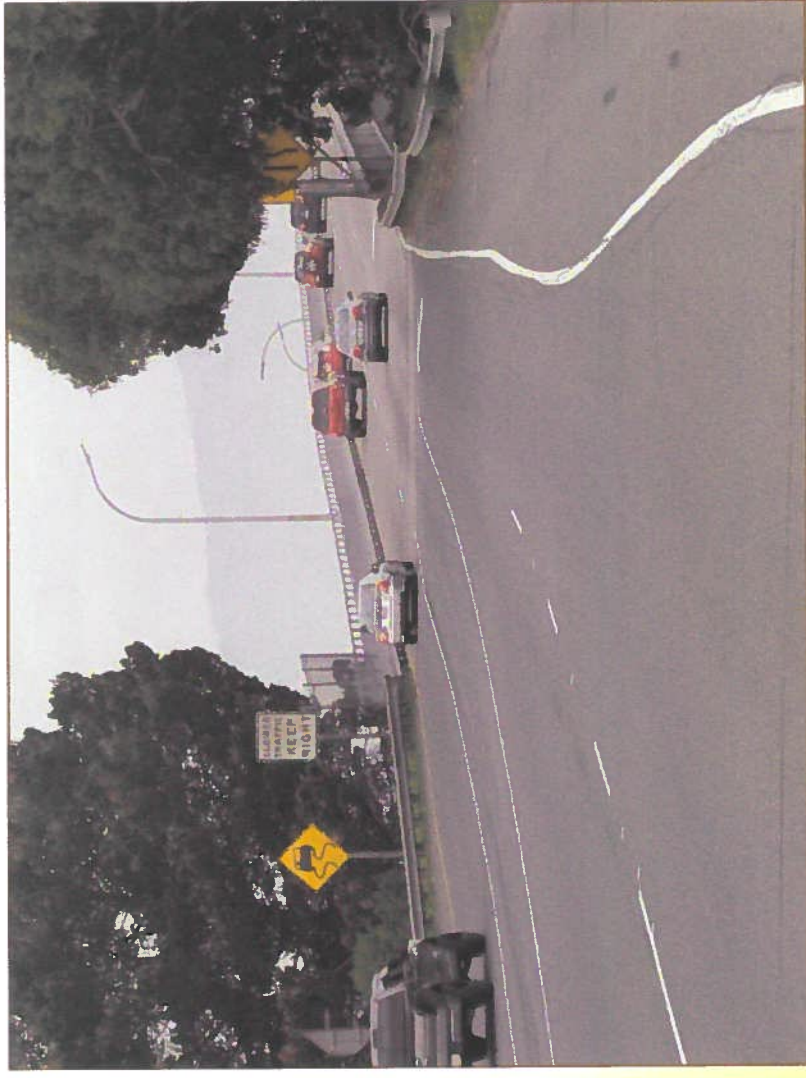
- Freeway Service Patrol (FSP) coordination
- Closed Circuit Television cameras (CCTV)
- Integration of lane management with Traffic Management Center (TMC) operations and incident response





# Merge onto RSR Bridge

- Restriping required for existing merge to accommodate bike path on upper deck
- Path connection from Stenmark Drive to WB I-580.





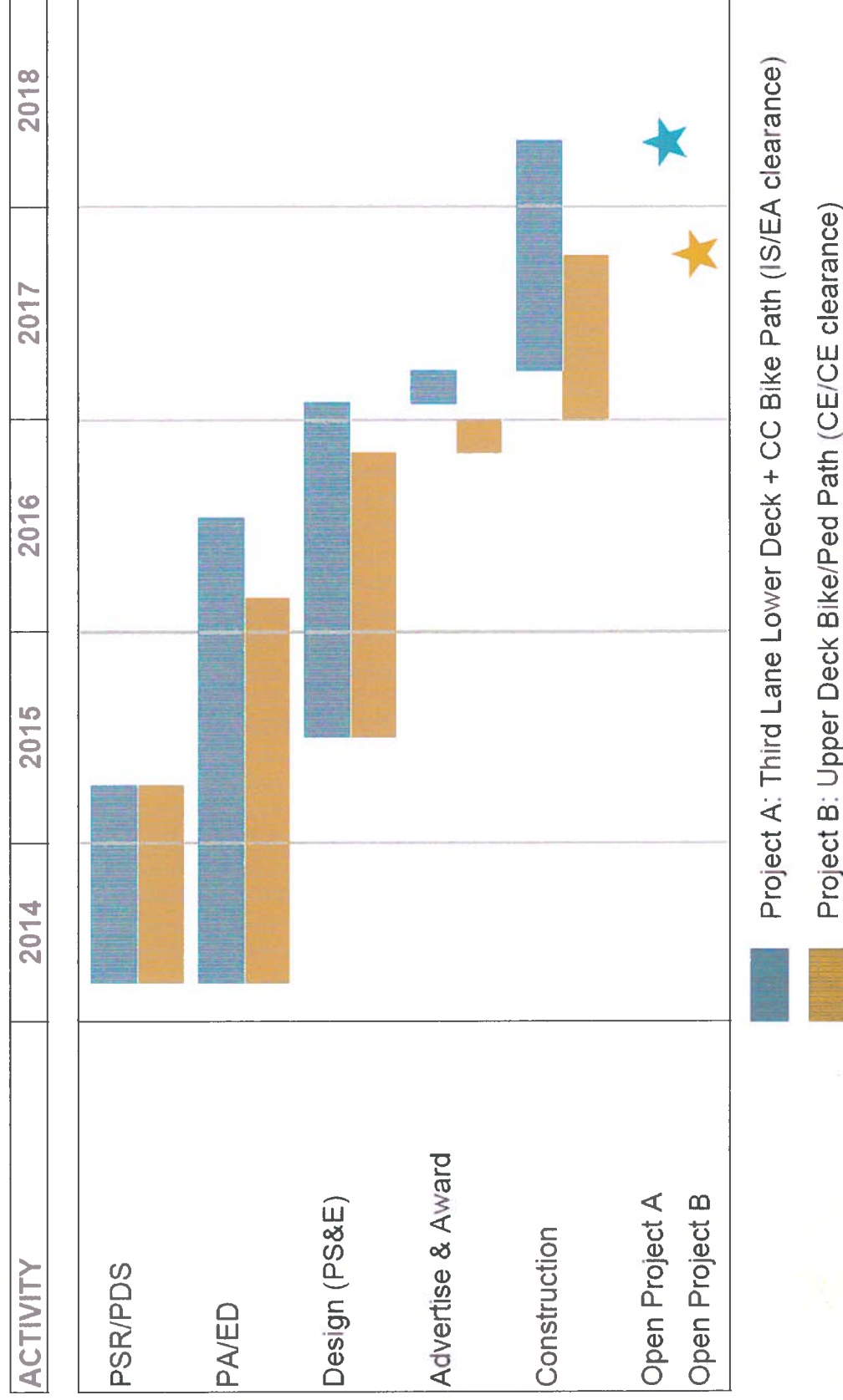
# BATA Budget Adopted June 2014

Total Budgeted Amount = \$74 million

	PROJECT A 3rd EB Lane	PROJECT B Bike Path Upper Deck	Operational Costs for Movable Barrier	Contingency	TOTALS
	CO/COS <sup>1</sup>	CO/COS <sup>1,2</sup>			
<b>BATA BUDGET</b>	<b>\$17 M</b>	<b>\$40 M</b>	<b>\$13 M</b>	<b>\$4 M</b>	<b>\$74 M</b>
<b>CURRENT ESTIMATE</b>	<b>\$30 M</b>	<b>\$29M</b>	Not Included	<b>\$15 M</b>	<b>\$74 M</b>

1. CO/COS – Capital Outlay and Capital Outlay Support
2. Assumes no structural modifications to RSR Bridge required

# Project Timeline



## DECISION DOCUMENT

### I-580 ACCESS IMPROVEMENT PROJECTS

Richmond-San Rafael (RSR) Bridge: 3<sup>rd</sup> Eastbound Travel Lane and Barrier  
Separated Bicycle - Pedestrian Path

**Problem Statement.** Congestion and Delay – Regional growth and local development in Marin County has resulted in significant traffic increases on eastbound I-580, Sir Francis Drake Blvd. and the RSR Bridge approach during evening peak commute periods. To accommodate the substantial growth projected to occur in this region, there is a need to improve and expand eastbound bridge operations to reduce and avoid additional traffic congestion and delay.

Accessibility for Pedestrians and Bicyclists –The lack of non-motorized traffic across the RSR Bridge represents a major gap in the 270-mile Bay Trail preventing bicyclists and pedestrians access across a major transportation corridor linking Marin County to Contra Costa County and beyond. To accommodate the need for non-motorized traffic using the Bay Trail, there is a need to improve and expand the availability of transportation options for transbay travel.

The PSR(PDS) under development for this project will be consistent with this Decision Document.

#### Recommendation.

**EB Direction [PSR(PDS) Element 1 and 2]** The proposed project will convert the existing shoulder on eastbound I-580 and the lower deck of the Richmond San Rafael Bridge to a 3<sup>rd</sup> travel lane between Sir Francis Drake Boulevard and Marine Street as a 4 year pilot (Element 1). This conversion will address the congestion and delay as noted above. This proposal also includes the necessary modifications required to safely accommodate bicycle traffic which is currently allowed on the shoulders of I-580 from Marine Street to Pointe Molate, and adds pedestrian access to this segment (Element 2). The 3<sup>rd</sup> EB lane will be open to vehicular traffic during the weekday evening peak periods only.

**WB Direction [PSR(PDS) Element 3]** The proposed project will convert the existing shoulder on the upper deck of the RSR Bridge to a class I bike path using a movable barrier system separating bicycle/pedestrian traffic from vehicular traffic as a 4-year pilot project. The movable barrier will create a 10-foot wide path to allow non-motorized access to the RSR Bridge for the first time.

It is anticipated that in order for the proposed project be successful, additional features will need to be incorporated. These features include traffic ITS and ATM elements (creating a ‘smart’ bridge corridor), an emergency response plan, enhanced enforcement, and maintenance planning. The details of these items, along with a performance matrix, will be developed in the next phase of the project.

This Decision Document approves this proposed project to proceed with environmental and technical studies in order to comply with CEQA and NEPA.

**Fiscal Impact.** The project is sponsored and funded by BATA. The existing BATA-Caltrans Cooperative Agreement will reimburse Caltrans for project related costs.

#### Organizational Impact.

**Employee Impact.** Resources for project related costs are available on a reimbursed basis. No employee impact is anticipated beyond normal duties and responsibilities



**Stakeholder Impact.** Initial outreach of stakeholders indicate that the project has a wide range of support. Additional outreach will be performed during the next phase of the project.

**Policy Impact.** The project does not entail any changes to policy. It fulfills several policy documents, including DP 05, DP 08 and DD 64-R2.

### Risks

This Decision Document does not eliminate the need for BATA and Caltrans to comply with requirements set forth by CEQA and NEPA. Final approval of the project is subject to the successful completion of the required environmental review. Successfully completing the environmental review of the scope as defined herein is a project risk. It is anticipated that a subsequent Decision Document will be developed which will include specific performance metrics for the pilot project.

### Proposed Implementation Schedule.

- Complete PSR (PDS) – March 2015
- Circulate Draft Environmental Document – January 2016
- Complete Project Report and Environmental Document – July 2016

### Contacts for notices and communications:

To BATA: Attention: Andrew Fremier  
Bay Area Toll Authority  
101 Eighth Street  
Oakland, CA 94607

To Caltrans: Attention: Dan McElhinney  
Caltrans District 4  
111 Grand Avenue  
Oakland, CA 94612

FHWA California Division Project Delivery Director, Matt Schmitz concurs with this decision.

### APPROVAL RECOMMENDED

\_\_\_\_\_  
BIJAN SARTIPI Date  
District 4 Director  
Caltrans

### APPROVAL RECOMMENDED

\_\_\_\_\_  
STEVE HEMINGER Date  
Executive Director  
BATA

### APPROVED

\_\_\_\_\_  
MALCOLM DOUGHERTY  
Director  
Caltrans

\_\_\_\_\_  
Date

# Attachment C

	Firm Name	Role on Project	DBE* Firm			SBE** Firm		
			Yes	DBE #	No	Yes	SBE #	No
Prime Contractor	HNTB Corporation	Design Services			X			X
Subcontractor	Associated Right of Way Services	Right of Way			X	X	30184	
	CirclePoint	Environmental Document			X	X	40528	
	Cogstone Resource Management, Inc.	Paleontology	X	33150		X	39024	
	Eisen Leticia	Stakeholder Coordination	X	35388				X
	Far Western Anthropological Research Group, Inc.	Archaeology			X			X
	Fehr & Peers	Traffic Analysis			X			X
	Illingworth & Rodkins Inc.	Air Quality, Noise Analysis			X	X	15604	
	JRP Historical Consulting, LLC	Historic Resources			X	X	1509783	
	Mark Thomas & Company Inc.	Mapping/Surveying			X			X
	Parikh Consultants, Inc.	Geotechnical & Hazmat	X	20259		X	9631	
	WRECO	Hydraulics & Water Quality	X	30066		X	60800	
	Y&C Transportation Consultants, Inc.	Electrical	X	28989		X	1545960	
	Haygood + Associates	Visual Impact Studies	X	3171		X	10430	

\*Denotes certification by the California Unified Certification Program (CUCP).

\*\*Denotes certification by the State of California.

## REQUEST FOR COMMITTEE APPROVAL

### Summary of Proposed Decision Document

Work Item No.:	1251
Parties:	Caltrans and BATA
Work Project Title:	I-580 Access Improvements
Purpose of Project:	To improve Interstate 580 to allow for a third eastbound lane across the Richmond San Rafael Bridge access to the Richmond San Rafael Bridge for motorists, bicyclists and pedestrians.
Brief Scope of Project:	<p>Eastbound I-580 third travel lane from Sir Francis Drake Boulevard to Marine Street, including mitigation to preserve the existing bicycle access for cyclists traveling from Point Molate to Richmond by constructing a new barrier separated path adjacent to Westbound I-580.</p> <p>Bi-directional bicycle and pedestrian path on the upper deck of the Richmond-San Rafael Bridge with improved connections to the bridge from Stenmark Drive and San Francisco Boulevard.</p>
Motion by Committee:	<p>That the Executive Director or his designee is authorized to negotiate and execute a Decision Document with Caltrans as described above and in the Executive Director's memorandum dated February 4, 2015.</p> <p>.</p>
BATA Oversight Committee:	<hr/> <p>Tom Bates, Vice Chair</p>
Approved:	February 11, 2015



## REQUEST FOR COMMITTEE APPROVAL

### Summary of Proposed Contract Amendment

Work Item No.:	1251
Vendor:	HNTB Corporation, Oakland, CA
Work Project Title:	On-Call Design Services: I-580 Access Improvements
Purpose of Project:	To improve Interstate 580 to allow for a third eastbound lane across the Richmond San Rafael Bridge and access to the Richmond San Rafael Bridge for motorists, bicyclists and pedestrians.
Brief Scope of Work:	The additional services with HNTB to complete final design and prepare associated Plans, Specifications and Estimates for the two projects.
Project Cost Not to Exceed:	This amendment - \$4,650,000 Current contract before this amendment - \$4,424,000 Maximum contract amount after amendment - \$9,074,000
Funding Source:	Toll Bridge Rehabilitation Program Budget
Fiscal Impact:	Funds are included in the FY 2014-15 Toll Bridge Rehabilitation Program Budget.
Motion by Committee:	That the Executive Director or his designee is authorized to negotiate and enter into a contract amendment with HNTB Corporation to provide additional design services, as described above and in the Executive Director's memorandum dated February 4, 2015, and the Chief Financial Officer is authorized to set aside funds in the amount \$4,650,000 for such contract amendment .
BATA Oversight Committee:	<hr/> Tom Bates, Vice Chair
Approved:	February 11, 2015